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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/588,367	06/06/2000	Manish Desai	56728-P001US-10001505	8928

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DALLAS OFFICE OF FULBRIGHT & JAWORSKI L.L.P.  
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EXAMINER

HENEGHAN, MATTHEW E

ART UNIT	PAPER NUMBER
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2134

DATE MAILED: 12/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

TS

# Office Action Summary

Application No.

09/588,367

Applicant(s)

DESAI ET AL.

Examiner

Matthew Heneghan

Art Unit

2134

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 25 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-23 and 35-51 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 and 35-51 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 June 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_. 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. Claims 1-23 and 35-51 have been examined.

***Election/Restrictions***

2. Applicant's election without traverse of Group I in Paper No. 4 is acknowledged.
3. Claims 41-51, which have been added to the instant application in the response to the restriction requirement, are found to be drawn to elected Group I.

***Drawings***

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: figure 7B, "709" and figure 9, "907." A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

***Specification***

5. The spacing of the lines of the specification is such as to make reading and entry of amendments difficult. New application papers with lines double spaced on good quality paper are required.

6. The use of the trademark First Data Corp.<sup>™</sup> has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 19-23 and 41-51 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 19 recites the limitation "said cryptography services module" in the first line. There is insufficient antecedent basis for this limitation in the claim. For purposes of

the prior art search, it is being presumed that the limitation teaches to the "second cryptographic services module."

Claims 41 provides for the use of a transaction processing device for providing financial services processing, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced. For purposes of the prior art search, the providing of financial services is not being viewed as a limitation.

Claims 20-23 and 42-51 depend from rejected claims 19 and 41, and include all the limitations of that claim, thereby rendering those dependent claims indefinite.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-3, 5, 41, 43-45, and 48-50 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,790,677 to Fox et al.

As per claim 1, the transaction system disclosed by Fox includes credential binding server (the configuration server) that registers and transmits configuration

information to a set of computing units (transaction processing devices) over a public network, using cryptography (see column 2, lines 8-52).

As per claim 2, the transaction device sends encrypted information to the binding server.

As per claim 3, the credential binding server uses encryption in generating credential information to send to the transaction processing devices (see column 11, lines 11-38).

As per claim 5, the encryption means of the computing units are internal to them.

As per claim 41, Fox discloses the use of stand-alone computers, such as PC's, as terminals (see column 2, lines 44-48). The system may configure with respect to particular user accounts (see column 22, line 48 to column 23, line 55).

As per claims 43 and 44, credit card and debit card transactions are supported (see column 22, lines 33-44).

As per claim 45, the example given is a point of sale transaction.

As per claim 48, a card reader on the terminal is disclosed (see column 17, lines 10-15).

Regarding claim 49, any system that is able to run on a public network is also inherently able to run on a private network.

As per claim 50, the system disclosed by Fox may be run using more than one network (see column 5, line 64 to column 6, line 4).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 4, 6-23, 42, 46, 47, and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,790,677 to Fox et al.

Though the system disclosed by Fox is disclosed to be usable over a public network, Fox does not specify the protocol to be used over the public network.

Regarding claims 6 and 42, official notice is given that TCP/IP is the most common Layer 3 protocol used on public networks, including the Internet.

Regarding claims 4 and 8, implementations of the TCP/IP protocol inherently include protocol stacks on all connected nodes.

Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made to implement the system disclosed by Fox using TCP/IP as the Layer 3 protocol, as it is the most widely-used public network protocol.

As per claim 7, the credential binding server is a configuration module.

As per claims 9, 11, and 13, the credential binding server issues certificates for each transaction processing device, and sends them over the network to the respective terminals.

As per claim 10, 12, 14, and 17, the credential binding server generates a certificate for the binding server to send back to each transaction processing device (see column 11, lines 24-38).

Regarding claims 15 and 16, any module that performs encryption inherently uses a cryptographic algorithm.

As per claim 18, each terminal's public key is extracted from information sent to the credential binding server as part of the registration process (see column 10, lines 50-55).

As per claims 19, 21, the credential binding server uses a hash of the terminal's registration in generating digital signatures, and sends credentials to the terminal (see column 11, lines 24-38).

As per claim 20, senders send messages to other participants using the participants' public keys, as extracted from their signatures (see column 12, lines 48 to column 13, line 7).

Regarding claim 22, official notice is given that it is well-known in the art that system administrators commonly maintain authorization databases on the Internet using web servers, as web servers have more user-friendly interfaces than other types of Internet servers.

Therefore, it would obvious to one of ordinary skill in the art at the time the invention was made to implement the credential binding server disclosed by Fox on a web server, in order to allow system administrators to maintain Internet databases using a user-friendly interface.



As per claim 23, the invention disclosed by Fox provides for user authentication (see column 20, lines 8-12).

Regarding claims 35 and 40, a transmission using TCP protocol concludes with a receipt acknowledgement.

Regarding claims 46 and 47, is official notice is given that it is well-known in the art that communications protocol stacks and cryptographic modules may be implemented in hardware, in order to reduce execution time.

Therefore, it would obvious to one of ordinary skill in the art at the time the invention was made to implement the communications protocol stacks and cryptographic modules in the invention disclosed by Fox in hardware, in order to reduce execution time.

Regarding claim 51, official notice is given that, in systems having multiple network interfaces, the method of sending of packets through different interfaces depending upon the destinations, in order to reduce transmission time, cost, or network congestion, is well-known in the art.

Therefore, it would obvious to one of ordinary skill in the art at the time the invention was made to implement the invention disclosed by Fox by sending packets over each interface, as determined by the respective destinations, in order to reduce transmission time, cost, or network congestion.

10. Claims 35-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,790,677 to Fox et al. in view of U.S. Patent No. 5,701,343 to Takashima et al.

Regarding claims 35 and 40, Fox discloses all the limitations therein, except in that there is no provision for a terminal to send the binding server an acknowledgement of the receipt of configuration data by the terminal.

The digital information protection system disclosed by Takashima includes the acknowledgement by the terminal of information received from the server (see column 2, lines 53-58), and Takashima further suggests that this is to protect from illegal copying of information by a third party (see column 1, lines 56-60).

Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made to modify the system disclosed by Fox by acknowledging the receipt of information from the binding server by the terminal, in order to protect from illegal copying of information by a third party.

As per claim 36, encryption for registration is performed by the terminal using a private key, and decryption at the binding server is done using the corresponding public key (see column 8, lines 28-62).

As per claim 37, the terminal sends a digital signature, which is an identifying number (see column 10, lines 25-32).

As per claims 38 and 39, the information returned by the binding server includes an encrypted digital signature, which must be verified by the terminal.

**Conclusion**

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew E. Heneghan, whose telephone number is (703) 305-7727. The examiner can normally be reached on Monday-Thursday from 8:00 AM - 4:00 PM Eastern Time. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Morse, can be reached on (703) 308-4789.

**Any response to this action should be mailed to:**


Commissioner of Patents and Trademarks  
Washington, DC 20231


**Or faxed to:**

(703) 872-9306

Hand-delivered responses should be brought to Crystal Park 2, 2121 Crystal Drive, Arlington, VA 22202, Fourth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

MEH   
December 18, 2003

  
GREGORY MORSE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100